RSX-11M/11S V4.1
Update Installation Guide and Update Notes

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PREFACE

MANUAL OBJECTIVES AND INTENDED AUDIENCE

The RSX-11M/11S V4.1 Update Installation Guide and Update Notes explains how to use the Update package you have received to apply corrections to your RSX-11M V4.1 and RSX-11S V4.1 operating system and layered product software. It also describes the new and changed functionality contained in this Update.

This document is intended for system managers and for those who are responsible for maintaining system software.

STRUCTURE OF THIS DOCUMENT

Sections 1 through 7 describe the Update kit and the Update command procedure. These sections also provide instructions on applying corrections to your RSX-11M V4.1 operating system software and information on how to correct errors that occur in the Update procedure.

Section 8 describes the layered product files that are included in the Update package.

Section 9 describes the Update package supplied to users of an RSX-11S V4.1 operating system.

Section 10 contains the Update Notes with descriptions of the new and altered functionality contained in the Update package.

ASSOCIATED DOCUMENTS

The RSX-11M V4.1 System Generation and Installation Guide provides information on the system generation procedure for RSX-11M. After you apply this Update, you must perform a system generation to integrate the corrections with your RSX-11M V4.1 software. You should read Chapters 1, 2, and 3 of the Guide before you attempt to apply this Update.

The RSX-11S V4.1 System Generation and Installation Guide and Chapters 1 and 3 of the RSX-11M/RMS-11/RSX-11S V4.1 Release Notes provide information on the system generation procedure for RSX-11S.

CONVENTIONS USED IN THIS DOCUMENT

Throughout this document, symbols and other notation conventions are used to represent keyboard characters, to convey textual information, and otherwise to aid in the presentation of material. The symbols and conventions used are explained as follows:

Convention	Meaning
RET	A 2- to 6-character symbol indicating that you must press a key on the terminal; for example, RET indicates the RETURN key and LF indicates the LINE FEED key.
CTRL a	The symbol CTRL a indicates that you must hold down the key labeled CTRL while you press another key; for example, CTRL Z indicates the CTRL and Z keys. In examples, this control key sequence is shown as ^a; for example, ^O indicates the result of CTRL O because that is how the system echoes most control key combinations.
^	The circumflex character, appearing with another character, represents the system response to receiving a control character. For example, when you type CTRL Z while running some system tasks, the system echoes ^Z. (On some terminals, the up-arrow (^) character is used in place of the circumflex.)
"print" and "type"	As these words are used in the text, the system prints and the user types.
MCR>	This is the explicit prompt of the Monitor Console Routine (MCR), one of the command interfaces used on RSX-11M/11S systems.
>	A right angle bracket is the system command interface prompting character. Whenever control is returned to the user's terminal and the system is ready to accept input, the prompt appears.
red ink	Text in red ink in examples indicates what you type. Text in black ink shows computer output.

1 INTRODUCTION

This manual explains how to use the Update package you have received to apply corrections to your RSX-11M Version 4.1 operating system and layered product software.

Included in this document is information on the Update package for your RSX-11S V4.1 operating system. Your RSX-11S Update is a new distribution kit that includes the Update C corrections. If you have an RSX-11S system, you should skip to Section 9 for more information on your operating system. The remainder of the material in this document refers to the RSX-11M V4.1 operating system software.

The Update package for RSX-11M consists of two groups of software: the **Update kit** and the **layered product files.** Depending on which type of Update package you receive, the two groups of software are supplied on one or two magnetic media. The magnetic tape kits are in BRU format.

The **Update kit** is a set of update files used to apply corrections to your RSX-11M V4.1 operating system software. These corrections are cumulative; each update contains all the corrections that have been generated since the last release of RSX-11M. Included in the Update kit is an interactive procedure that applies these updated files to your operating system software.

The **layered product files** are used to apply corrections to some of the layered products (such as languages and DECnet) that run on RSX-11M. Section 8 of this document explains how to locate the instructions for applying these updated files to the layered software products.

This guide explains how to use the Update kit and how to locate instructions for applying the layered product files. It also includes notes on new and altered functionality that results from the application of this Update.

Because the Update procedure is closely related to the system generation procedure, you should read Chapters 1, 2, and 3 of the RSX-11M System Generation and Installation Guide before you attempt to apply this Update.

If you are installing an RSX-11M system for the first time, keep in mind that you must apply Update **before** you invoke SYSGEN to generate your system.

2 THE UPDATE PACKAGE

The Update package you received is one of four types:

- Magnetic tape, either 800 or 1600 bpi
- RK06/7 disk

- RL02 disk
- RL01 disks (2)

If you have a big disk distribution kit, your Update package is on magnetic tape.

If you have an RK06/07 or RL01/02 distribution kit, your Update package is on either magnetic tape or disk.

2.1 Contents of the Update Package

The Update package contains the Update kit and the layered product files.

The software in the **Update kit** falls into three catagories:

- Update procedure command file - the indirect command file that controls the Update procedure
- Replacement files - the updated or new object modules that replace the object module files on your RSX-11M distribution kit
- Correction files - the files (.COR file type) that were used to create the updated source files (.MAC file type) that the Update procedure applies

The **layered product files** are used to apply corrections to certain layered products that run on RSX-11M. For a list of the layered product files and for instructions on using them, see Section 8.

3 HOW UPDATE WORKS

Update is the name of a command procedure that applies corrections to your RSX-11M V4.1 operating system software.

The Update procedure copies the replacement files in the Update kit to a disk containing a copy of your RSX-11M V4.1 distribution kit. You use the updated distribution kit disk to generate a new RSX-11M system.

The Update kit is cumulative. Each revision of the update kit contains all corrections that have been produced since the last full release of RSX-11M.

You must apply this update to an unaltered copy of the RSX-11M V4.1 distribution kit or the corrections will not be properly integrated with the other system software components and your system will not work.

3.1 The Update Command Procedure

An indirect command file named UPDATE.CMD is contained on your RSX-11M V4.1 Update C kit. This indirect command file applies the updated files to a disk copy of your RSX-11M V4.1 distribution kit.

If you have an Update disk kit, UPDATE.CMD is contained in UFD [200,200] on your Update disk.

If you have an Update tape kit, UPDATE.CMD is contained in the appropriate backup set for your distribution kit type.

UPDATE CMD replaces the original object modules and source files on the copy of your distribution kit with updated versions of the files. When this copying is complete, the Update has been applied and you have a target system disk containing all the necessary files to produce an updated RSX-11M system. You must then invoke the SYSGEN procedure to generate the updated RSX-11M system.

3.2 Replacement Files

The replacement object files (.OBJ file type) are the updated files that incorporate the latest corrections to your RSX-11M system. The Update procedure copies these replacement files to your target system disk. The corrected object files in the kit are used to create the updated object libraries. When you perform a new system generation using these updated object libraries, you create an updated system containing the corrections and new functionality supplied in the Update.

3.3 Source Correction Files

The Update kit also contains the source correction files (.COR file type) that were used to create some of the replacement files used by the update procedure. These files are included to document the changes made by this Update to those portions of the system software for which MACRO-11 source code is supplied on the RSX-11M V4.1 distribution kit.

In most circumstances, you do not need these files. If your application requires it, you may edit the correction files to include your own corrections and then you can apply the edited correction files manually to produce updated source files.

Section 10.1 of this guide contains a list of the source correction files included in the Update kit.

4 PREPARING FOR UPDATE

Before you apply Update, you must create a disk copy of the original, unaltered RSX-11M V4.1 distribution kit. This must not be a copy on which you have run SYSGEN, but a copy made directly from your RSX-11M V4.1 distribution kit.

By copying your distribution kit to disk, you can be assured that you have the original distribution kit unaltered in case you need to recopy it because of media or hardware problems during Update. Note that Updates are cumulative; therefore, any future Update for RSX-11M must also be applied to a disk copy of the original distribution kit.

To copy your distribution kit to disk, following the instructions in Chapter 2 of the RSX-11M System Generation and Installation Guide. After you have made a copy of your distribution kit, store the distribution kit in a safe place in case the disk copy is destroyed and you need to recopy it.

4.1 Applying Update on Line or Stand-Alone

After you have made a copy of your distribution kit, you can prepare to apply your Update on line or stand-alone.

To apply Update on line, you must have a running RSX-11M V4.0 or V4.1 system. Section 5 describes the steps you must follow to invoke and apply your Update on line.

To apply Update stand-alone, you must use the baseline system provided on the Update disk or the baseline system provided on the RSX-11M V4.1 distribution kit. If you have a big disk distribution kit, you must use the baseline system provided on the RSX-11M V4.1 distribution kit. If you have an RK06/07 or RL01/02 distribution kit, you must use the baseline system provided on your Update kit. Section 6 describes the steps you must follow to invoke and apply your Update stand-alone.

5 INVOKING AND APPLYING UPDATE ON LINE

This section describes the steps you must follow to invoke and apply Update on line. Because of the various types of media, the procedure for applying your Update kit to a copy of your distribution kit varies.

If you have a big disk distribution kit, your Update kit is on magnetic tape. Section 5.1 describes the steps you must follow to invoke and apply Update on line.

If you have an RK06/07 or RL01/02 distribution kit and your Update kit is on magnetic tape, Section 5.2 describes the steps you must follow to invoke and apply Update on line.

If you have an RK06/07 or RL01/02 distribution kit and your Update kit is on disk, Section 5.3 describes the steps you must follow to invoke and apply Update on line.

Note that errors may occur when you are invoking and applying Update. If you encounter errors, do not continue with the Update procedure. Section 7 is a guide to solving problems that can occur in Update.

5.1 Magnetic Tape Update Kit, Big Disk Distribution Kit

The following media and hardware are required to apply your magnetic tape Update kit to the copy of your big disk distribution kit on line:

- The Update tape
- A copy of the RSX-11M V4.1 distribution kit on disk (labeled RSXM35)
- One tape drive to contain the Update tape
- One disk drive to contain the copy of the RSX-11M V4.1 distribution kit

To apply your magnetic tape Update kit to your big disk distribution kit, you must copy the Update kit to the baseline disk before invoking Update. Once you have a copy of the magnetic tape kit on disk, you must invoke UPDATE.CMD from the baseline disk. UPDATE.CMD then applies the update files to the copy of your distribution kit.

NOTE

Update must be applied to a copy of your distribution kit. If you have not made a copy of your distribution kit, refer to Section 4 and make a copy of your distribution kit before continuing.

The following is a step-by-step guide to invoking and applying your Update kit to your big disk distribution kit:

1. Make sure your terminal is set to MCR.

2. If you have a multiuser system, allocate the appropriate disk and magnetic tape drives.

   You must allocate a disk drive for the Update tape and you must allocate a disk drive for the distribution kit.

   For example, if you load the Update tape on a TU16 magnetic tape drive, MM0:, and the distribution kit in an RM02 disk drive, DR0:, allocate your devices as follows:

```
>ALL DR0:
>ALL MM0:
```

3. Load the copy of your distribution kit disk in the disk drive, with the drive write-enabled.

4. Load your Update kit on the tape drive, with the drive write-protected.

5. Mount the copy of your distribution kit disk with the label RSXM35.

   For example, if you have an RM02 distribution kit disk in DR0:, mount the disk as follows:

```
>MOU DR0:RSXM35
```

6. Make sure BRU is installed and then enter the following command line to copy the update files from the Update tape kit to the copy of your distribution kit:

```
>BRU /DENS:dens/NOINIT/UFD/SUP/BAC:BIGKIT tape disk
```

   Replace "dens" with the density of the tape (800 or 1600), "tape" with the name of the tape drive, and "disk" with the name of the disk drive that contains the copy of the RSXM35 big disk distribution kit.

   For example, if you are applying an 800 bpi Update tape kit and you are using a TU16 magnetic tape on drive MM0: with an RM02 distribution kit disk in DR0:, copy the files from the Update tape to the disk as follows:

```
>BRU /DENS:800/NOINIT/UFD/SUP/BAC:BIGKIT MM0:  DR0:
```

   If any error messages occur from BRU, do not continue. Refer to Chapter 7 of the **RSX-11M/M-PLUS Utilities Manual** manual and correct the error before applying Update.

7. Enter the following command line to invoke the Update command procedure:

```
>@ddnn:[200,200]UPDATE
```

Replace "ddnn" with the device name of the distribution kit disk. For example, if your distribution kit disk is an RM02 mounted in DR0:, invoke the command procedure as follows:

```
> @DR0:[200,200]UPDATE
```

You are now ready to answer the questions that the Update procedure asks. If you encounter any errors, Section 7 describes the action you should follow.

The following questions are numbered in the order in which they appear on your terminal:

* 1. Have you made a copy of the distribution kit?

Update must be applied to the copy of your distribution kit, not to the original.

If you have made a copy of your distribution kit, answer Yes to this question.

If you have not made a copy of your distribution kit, answer No to this question so that you can exit from the command procedure. You must make a copy of your distribution kit before applying Update. Section 4 discusses copying your distribution kit. Once you have made a copy of your distribution kit continue from Section 5.

* 2. What type of distribution kit do you have? (A, B, or C)

The types of distribution kits are as follows:

```
A -- Big disk (RP04, RP05, RP06, RM02, RM03, RM05,
               RM80, RP07, RA60, RA80, or RA81)
B -- RK06 or RK07
C -- RL01 or RL02
```

Enter A to continue with the Update procedure for the big disk distribution kit.

* 4. Do you want to keep the Update files in [*,60] and [*,64]?

The update files (generally .COR and corrected .OBJ files) are in directories [*,60] and [*,64]. The Update procedure applies these files to the big disk distribution kit to create the updated system. Once the corrections have been applied, the files are not needed.

If you would like to keep the update files, answer Ye to this question.

If you do not want to keep copies of the update files, answer No to this question and the Update procedure will delete them.

Sections 3.2 and 3.3 describe the update files.

* 5. Do you want to keep the original versions of the updated files?

Update corrects some files such as .MAC and .CMD files. When these files are corrected, new versions are created. The original versions are not needed to create your updated system.

If you would like to keep the original versions of these files, answer Yes to this question.

If you would like the Update procedure to purge these files, answer No to this question.

Note that the update files are now applied to the distribution kit.

* 7. Do you want to start the SYSGEN now?

When the Update procedure has finished updating your disk, you must perform a system generation to create your updated system.

Answer Yes to this question if you would like to begin SYSGEN.

Answer No to this question if you would like to perform your SYSGEN at a later time.

If you are installing an RSX-11M system for the first time, answer No to the question and turn to Chapter 3 of the RSX-11M System Generation and Installation Guide for instructions on performing a system generation.

5.2 Magnetic Tape Update Kit, RK06/07 or RL01/02 Distribution Kit

The following media and hardware are required to apply your magnetic tape Update kit to the copy of your RK06/07 or RL01/02 distribution kit on line:

- The Update tape
- A copy of your RSX-11M V4.1 distribution kit on disk
- A scratch disk physically labeled "RSX-11M V4.1 Update C Kit" which will be a disk copy of the Update tape kit
- One tape drive to contain the Update kit
- One disk drive to contain the scratch disk
- One or more disk drives to contain the copy of your distribution kit

To apply your Update kit to your distribution kit, you must copy your magnetic tape Update kit to a scratch disk (of the same type as your distribution disk) before invoking Update. The disk copy of your Update tape then becomes your Update disk. To complete the Update procedure, you must invoke UPDATE.CMD from the Update disk. UPDATE.CMD then applies the update files from the Update disk to the copy of your distribution kit.

NOTE

Update must be applied to a copy of your distribution kit. If you have not made a copy of your distribution kit, refer to Section 4 and make a copy of your distribution kit before continuing.

The following is a step-by-step guide to invoking and applying your Update kit to a copy of your distribution kit:

1. Make sure your terminal is set to MCR.

2. If you have a multiuser system, allocate the appropriate magnetic tape and disk drives.

   You must allocate a tape drive for the Update tape, a disk drive for the scratch disk, and at least one disk drive for the distribution kit.

   For example, if you load the Update tape on a TU16 magnetic tape drive in MM0:, and the scratch disk and distribution kit disks are on RK07 disk drives, DM0: and DM1:, use the following command lines to allocate your devices:

   ```
   >ALL DM0:
   >ALL DM1:
   >ALL MM0:
   ```

3. Load the scratch disk on the disk drive, with the drive write-enabled.

4. Load your Update tape on the tape drive, with the drive write-protected.

5. Enter the following MCR command line to copy the update files from the Update tape to the scratch disk:

   ```
   >BRU /DENS:dens/INIT/BAC:name tape disk
   ```

   You must replace "dens" with the density of the tape (800 or 1600), "name" with DMKIT if you have an RK06 or RK07 kit, or DLKIT if you have an RL01 or RL02 kit, "tape" with the name of the tape drive containing the Update kit, and "disk" with the name of the disk drive containing the scratch disk.

   For example, if you are applying an 1600 bpi Update tape and you are using a TU16 magnetic tape drive, MM0:, with your distribution disk in DM0:, copy the files from the Update tape to the scratch disk as follows:

   ```
   >BRU /DENS:1600/INIT/BAC:DMKIT MM0:  DM0:
   ```

   The disk copy of your Update tape is referred to as your Update disk from here on.

   If any error messages occur from BRU, do not continue. Refer to Chapter 7 of the RSX-11M/M-PLUS Utilities Manual and correct the error before applying the Update.

6. Mount the Update disk with the label M41UPDATEC, with the drive write-protected.

   For example, if your Update disk is an RK07 in DM0:, mount the disk as follows:

   ```
   >MOU DM0:M41UPDATEC
   ```

7. Enter the following command line to invoke the Update command procedure:

   ```
   >@ddnn:[200,200]UPDATE
   ```

Replace "ddnn:" with the device name of your Update disk. For example, if your Update disk is an RK07 in DM0:, invoke the command procedure as follows:

```
> @DM0:[200,200]UPDATE
```

You are now ready to answer the questions that the Update procedure asks. If you encounter any errors, Section 7 describes the action you should follow.

The questions that follow are numbered in the order they appear on your terminal:

* 1. Have you made a copy of the distribution kit?

  Update must be applied to a copy of your distribution kit, not to the original.

  If you have made a copy of your distribution kit, answer Yes to this question.

  If you have not made a copy of your distribution kit, answer No to this question to exit from the command procedure. You must make a copy of your distribution kit before applying Update. Section 4 discusses copying your distribution kit. Once you have made a copy of your distribution kit, continue from Section 5.

* 2. What type of distribution kit do you have? (A, B, or C)

  The types of distribution kits are as follows:

  A -- Big disk (RP04, RP05, RP06, RM02, RM03, RM05, RM80, RP07, RA60, RA80, or RA81)
  B -- RK06 or RK07
  C -- RL01 or RL02

  Enter the letter (B or C) that corresponds to your distribution kit.

* 3. Drive(s):

  Enter the name of one or more disk drives that are to contain the distribution kit.

  For example, you might do the following:

  ```
  Drive(s):  DM0:

             or

  Drive(s):  DL2:,DL3:
  ```

  In the first example, DM0: is the name of the drive that will contain the distribution kit. In the second example, DL2: and DL3: are the names of the drives that will contain the distribution kit.

* 5. Do you want to keep the original versions of the updated files?

  This question is only asked if you have an **RK07 distribution kit**.

Update corrects some files such as .MAC and .CMD files. When these files are corrected, new versions are created. The original versions are not needed.

Answer Yes if you would like to keep all versions of the files.

Answer No if you would like the Update procedure to purge these files.

If the distribution kit is on an **RK06, RL01, or RL02 disk**, this question is not asked. The original versions of the updated files are purged automatically to create space for the new versions.

* 6. Please load the <volume_name> disk from your distribution kit into <ddu:>, then press the **RETURN** key...

The Update procedure is ready to update the distribution kit. Load the requested disk into the disk drive and press the **RETURN** key. Update will apply the corrections to that disk and then prompt you for the next disk in your distribution kit.

* 7. Do you want to start the SYSGEN now?

When the Update procedure has finished updating your disk, you must perform a system generation to create your updated system.

Answer Yes to this question if you would like to begin SYSGEN.

Answer No if you would like to perform your SYSGEN at a later time.

If you are installing an RSX-11M system for the first time, answer No to this question and turn to Chapter 3 of the RSX-11M System Generation and Installation Guide for instructions on performing a system generation.

5.3 Disk Update Kit, RK06/07 or RL01/02 Distribution Kit

The following media and hardware is required to apply your Update disk kit to the copy of your RK06/07 or RL01/02 distribution kit on line:

- The Update disk
- A copy of your RSX-11M V4.1 distribution kit on disk
- One disk drive to contain the Update disk
- One or more disk drives to contain the copy of your distribution kit

To invoke and apply an Update disk kit to an RK06/07 or an RL01/02 distribution kit, you must invoke UPDATE.CMD from the Update disk. The update files are then applied to the copy of your distribution kit from the Update disk.

NOTE

Update must be applied to a copy of your original RSX-11M V4.1 distribution kit. If you have not made a copy of your distribution kit, refer to Section 4 and make a copy of your distribution kit before continuing.

The following is a step-by-step guide to invoking and applying your Update kit to the copy of your distribution kit:

1. Make sure your terminal is set to MCR.

2. Allocate the appropriate disk drives.

   You must allocate a disk drive to contain the Update disk and one or more disk drives to contain the distribution kit.

   For example, if you load the Update disk and the distribution kit disks in RK07 drives DM1: and DM2:, allocate the drives as follows:

   ```
   > ALL DM1:
   > ALL DM2:
   ```

3. Load the Update disk in the disk drive, with the disk write-protected.

4. Mount the Update disk with the label M41UPDATEC.

   For example, if you loaded the Update disk into the RK07 drive DM1:, mount the Update disk as follows:

   ```
   > MOU DM1:M41UPDATEC
   ```

   The RL01 disk update kit contains two RL01 disks. You use the first disk labeled M41UPDATEC for this procedure. You use the disk labeled M41CLAYPROD when you update the layered products for your system. (See Section 8 for more information on updating layered products.)

5. Enter the following command line to invoke the Update command procedure

   ```
   >@ddnn:[200,200]UPDATE
   ```

   Replace "ddnn:" with the device name of the Update disk drive. For example, if your Update disk is in DM1:, invoke the command procedure as follows:

   ```
   > @DM1:[200,200]UPDATE
   ```

You are now ready to answer the questions that the Update procedure asks. If you encounter any errors, Section 7 describes the action you should follow.

The questions that follow are numbered in the order they appear on your terminal:

* 1. Have you made a copy of the distribution kit?

   Update must be applied to a copy of your distribution kit, not to the original.

If you have made a copy of your distribution kit, answer Yes to this question.

If you have not made a copy of your distribution kit, answer No to this question to exit from the command procedure. You must make a copy of your distribution kit before applying Update. Section 4 discusses copying your distribution kit. Once you have made a copy of your distribution kit, continue from Section 5.

* 2. What type of distribution kit do you have? (A, B, or C)

The types of distribution kits are as follows:

A -- Big disk (RP04, RP05, RP06, RM02, RM03, RM05, RM80, RP07, RA60, RA80, or RA81)
B -- RK06 or RK07
C -- RL01 or RL02

Enter the letter (B or C) that corresponds to your distribution kit.

* 3. Drive(s):

Enter the name of one or more disk drives that are to contain the copy of your distribution kit.

For example, you might do the following:

```
Drive(s): DM0:

          or

Drive(s): DL2:,DL3:
```

In the first example, DM0: is the name of the drive that will contain the copy of your distribution kit. In the second example, DL2: and DL3: are the names of the drives that will contain the distribution kit.

* 5. Do you want to keep the original versions of the updated files?

This question is only asked if you have an **RK07 distribution kit**.

Update corrects some files such as .MAC and .CMD files. When these files are corrected, new versions are created. The original versions are not needed.

Answer Yes if you would like to keep all versions of the files.

Answer No if you would like the Update procedure to purge these files.

If your distribution kit is on an **RK06, RL01, or RL02 disk**, this question is not asked. The original versions of the updated files are purged automatically to create space for the new versions.

* 6. Please load the <volume_name> disk from your distribution kit into <ddu:>, then press the RETURN key...

The Update procedure is ready to update the distribution kit. Load the requested disk into the disk drive and press the RETURN key. Update will apply the corrections to that disk and then prompt you for the next disk in your distribution kit.

* 7. Do you want to start the SYSGEN now?

When the Update procedure has finished updating your disk, you must perform a system generation to create your updated system.

Answer Yes to this question if you would like to begin SYSGEN.

Answer No if you would like to perform your SYSGEN at a later time.

If you are installing an RSX-11M system for the first time, answer No to this question and turn to Chapter 3 of the RSX-11M System Generation and Installation Guide for instructions on performing a system generation.

6 INVOKING AND APPLYING UPDATE STAND-ALONE

This section describes the steps you must follow to invoke and apply Update stand-alone. Because of the various types of media, the procedure for applying your Update kit to a copy of your distribution kit varies.

If you have a big disk distribution kit, your Update kit is on magnetic tape. Section 6.1 describes the steps you must follow to invoke and apply Update stand-alone.

If you have an RK06/07 or RL01/02 distribution kit and your Update kit is on magnetic tape, Section 6.2 describes the steps you must follow to invoke and apply Update stand-alone.

If you have an RK06/07 or RL01/02 distribution kit and your Update kit is on disk, Section 6.3 describes the steps you must follow to invoke and apply Update stand-alone.

Note that errors may occur when you are invoking and applying Update. If you encounter errors, do not continue with the Update procedure. Section 7 is a guide to solving problems that can occur in Update.

6.1 Magnetic Tape Update Kit, Big Disk Distribution Kit

The following media and hardware is required to apply a magnetic tape Update kit to the copy of your big disk distribution kit stand-alone:

- The Update tape
- A copy of the RSX-11M V4.1 distribution kit on disk (labeled RSXM35)
- One tape drive to contain the Update tape
- One disk drive to contain the copy of the RSX-11M V4.1 distribution kit

Note that for a stand-alone procedure, the copy of your distribution kit is referred to as your baseline disk.

To apply your magnetic tape Update kit to your big disk distribution kit, you must hardware bootstrap the big disk distribution disk and copy the update files to it. You then invoke UPDATE.CMD from the copy of your distribution disk and UPDATE.CMD applies the update files to the copy of your distribution kit.

NOTE

Update must be applied to a copy of your original RSX-11M V4.1 distribution kit. If you have not made a copy of your distribution kit, refer to Section 4 and make a copy of your distribution kit before continuing.

The following is a step-by-step guide to invoking and applying your Update kit to the copy of your big disk distribution kit:

1. Load the baseline disk in the disk drive, with the disk write-enabled.

2. Hardware bootstrap the baseline disk. Enter the time and the line width of the console terminal in response to the questions.

3. Load the Update tape on the magnetic tape drive, with the tape write-protected.

4. Load the magnetic tape driver.

   For example, if you loaded the Update tape on a TU16 magnetic tape drive, load the driver as follows:

   ```
   > LOA MM:
   ```

5. Enter the following command lines to copy the update files from the Update tape kit to the baseline disk:

   ```
   >INS $BRU
   >BRU /DENS:dens/NOINIT/UFD/SUP/BAC:BIGKIT tape disk
   ```

   You must replace "dens" with the density of the tape (800 or 1600), "tape" with the name of the tape drive, and "disk" with the name of the baseline disk. BIGKIT is the name of your baseline disk.

   For example, if you have an 800 bpi Update tape on TU16 magnetic tape drive, MM0:, and an RM02 disk in DR0:, copy the files from the tape to the disk as follows:

   ```
   > INS $BRU
   > BRU /DENS:800/NOINIT/UFD/SUP/BAC:BIGKIT MM0: DR0:
   ```

6. Enter the following command line to invoke the Update command procedure:

   ```
   > @[2,0]UPDATE
   ```

You are now ready to answer the questions that the Update procedure asks. If you encounter any errors, Section 7 describes the action you should follow.

The following questions are numbered in the order in which they appear on your terminal:

* 1. Have you made a copy of the distribution kit?

Update must be applied to the copy of your distribution kit, not to the original.

If you have made a copy of your distribution kit, answer Yes to this question.

If you have not made a copy of your distribution kit, answer No to this question to exit from the command procedure. You must make a copy of your distribution kit before applying Update. Section 4 discusses copying your distribution kit. Once you have made a copy of your distribution kit, continue from Section 6.

* 2. What type of distribution kit do you have? (A, B, or C)

The types of distribution kits are as follows:

A -- Big disk (RP04, RP05, RP06, RM02, RM03, RM05, RM80, RP07, RA60, RA80, or RA81)
B -- RK06 or RK07
C -- RL01 or RL02

Enter A to continue with the Update procedure for a big disk distribution kit.

* 4. Do you want to keep the Update files in [*,60] and [*,64]?

The Update files (generally .COR and .OBJ files) are in directories [*,60] and [*,64]. The Update procedure applies these files to the copy of your big disk distribution kit to create your updated system. Once the corrections have been made, the files are not needed.

If you would like to keep the update files, answer Yes to this question.

If you do not want to keep copies of the update files, answer No to this question and the Update procedure will delete them.

Sections 3.2 and 3.3 describe the update files.

* 5. Do you want to keep the original versions of the updated files?

Update corrects some files such as .MAC and .CMD files. When these files are corrected, new versions are created. The original versions are not needed to create your updated system.

If you would like to keep the original versions of these files, answer Yes to this question.

If you would like the Update procedure to purge these files, answer No to this question.

Note that the update files are now applied to the distribution kit.

* 7. Do you want to start the SYSGEN now?

When the Update procedure has finished updating your disk, you must perform a system generation to create your updated system.

Answer Yes to this question if you would like to begin SYSGEN.

Answer No to this question if you would like to perform your SYSGEN at a later time.

If you are installing an RSX-11M system for the first time, answer No to this question and turn to Chapter 3 of the RSX-11M System Generation and Installation Guide for instructions on performing a system generation.

6.2 Magnetic Tape Update Kit, RK06/07 or RL01/02 Distribution Kit

The following media and hardware are required to apply your magnetic tape Update kit to the copy of your RK06/07 or RL01/02 distribution kit stand-alone:

- The Update tape
- A copy of your RSX-11M V4.1 distribution kit on disk
- A scratch disk physically labeled "RSX-11M V4.1 Update C Kit" which will be a disk copy of the Update tape kit
- A copy of the BRU64K tape
- One tape drive to contain the Update kit
- One disk drive to contain the scratch disk (of the same type as your distribution disk)
- One or more disk drives to contain the copy of your distribution kit

To apply your Update kit to your distribution kit, you must copy your magnetic tape Update kit to a scratch disk (of the same type as your distribution disk) before invoking Update. The disk copy of your Update tape then becomes your Update disk. To complete the Update process, you must hardware bootstrap the Update disk. The Update procedure is then invoked and the update files are applied to the copy of your distribution kit.

NOTE

Update must be applied to a copy of your original RSX-11M V4.1 distribution kit. If you have not made a copy of your distribution kit, refer to Section 4 and make a copy of your distribution kit before continuing.

The following is a step-by-step guide to invoking and applying your Update kit to the distribution kit:

1. Load the scratch disk in the disk drive, with the disk write-enabled.

2. Load the BRU64K tape that you received with your distribution kit on the magnetic tape drive, with the tape write-protected.

3. Hardware bootstrap the BRU64K tape.

   This step will load an RSX-11S stand-alone system into memory and allow you to copy the update files off the Update tape.

   The RSX-11S stand-alone system prints an identification line on your terminal and then begins to run the Stand-Alone Configuration and Disk Sizing Program (CNF).

   Refer to the Chapter 7 of the RSX-11M/M-PLUS Utilities Manual for instructions on how to use BRU64K.

4. Remove the BRU64K tape from the drive and load the Update tape on the tape drive previously entered to CNF, write-protected.

5. Enter the following command lines to copy the Update files from the Update tape to the scratch disk.

```
>RUN BRU
>
BRU>/DENS:dens/BAC:name tape disk
```

   Replace "dens" with the density of the tape, "name" with DMKIT if you have an RK06/07 distribution kit, or DLKIT if you have an RL01/02 distribution kit, "tape" with the name of the tape drive, and "disk" with the name of the disk drive.

   For example, if you have an 800 bpi tape on a TU16 magnetic tape drive in MM0: and an RK07 distribution kit in DM0:, copy the files from the tape to the disk as follows:

```
>RUN BRU
>
BRU>/DENS:800/BAC:DMKIT MM0: DM0:
```

   The disk copy of your Update tape is now referred to as your Update disk.

   If you encounter errors from the BRU utility, refer to the RSX-11M/M-PLUS Utilities Manual before continuing.

6. Hardware bootstrap the update disk and enter the time and the line width of the console terminal in response to the questions.

You are now ready to answer the questions that the Update procedure asks. If you encounter any errors, Section 7 describes the action you should follow.

The questions that follow are numbered in the order they appear on your terminal:

* 1. Have you made a copy of the distribution kit?

   Update must be applied to a copy of your distribution kit, not to the original.

   If you have made a copy of your distribution kit, answer Yes to this question.

If you have not made a copy of your distribution kit, answer No to this question so that you may exit the command procedure. You must make a copy of your distribution kit before applying Update. Section 4 discusses copying your distribution kit. Once you have made a copy of your distribution kit, continue from Section 6.

* 2. What type of distribution kit do you have? (A, B, or C)

The types of distribution kits are as follows:

A -- Big disk (RP04, RP05, RP06, RM02, RM03, RM05, RM80, RP07, RA60, RA80, or RA81)
B -- RK06 or RK07
C -- RL01 or RL02

Enter the letter (B or C) that corresponds to your distribution kit.

* 3. Drive(s):

Enter the name of one or more disk drives that are to contain the distribution kit.

For example, you might do the following:

```
Drive(s):  DM0:

           or

Drive(s):  DL2:,DL3:
```

In the first example, DM0: is the name of the drive that will contain your distribution kit. In the second example, DL2: and DL3: are the names of the drives that will contain your distribution kit.

* 5. Do you want to keep the original versions of the updated files?

This question is only asked if you have an **RK07 distribution kit.**

Update corrects some files such as .MAC and .CMD files. When these files are corrected, new versions are created. The original versions are not needed.

Answer Yes if you would like to keep all versions of the files.

Answer No if you would like the Update procedure to purge these files.

If your distribution kit is on an **RK06, RL01,** or **RL02 disk,** this question is not asked. The original versions of the updated files are purged automatically to create room for the new versions.

* 6. Please load the <volume_name> disk from your distribution kit into <ddu:>, then press the RETURN key...

The Update procedure is ready to update your distribution disks. Load the requested disk into the disk drive and press the RETURN key. Update will apply the corrections to that disk and then prompt you for the next disk in your distribution kit.

Once the Update procedure has updated each disk in your distribution kit, you must perform a system generation to create an updated system.

To create an updated system, hardware bootstrap the updated RSXM35 disk and start SYSGEN as follows:

```
>@SYSGEN
```

If you are installing an RSX-11M system for the first time, do not begin SYSGEN, but rather turn to Chapter 3 of the RSX-11M System Generation and Installation Guide for instructions on performing a system generation.

6.3 Disk Update Kit, RK06/07 or RL01/02 Distribution Kit

The following media and hardware is required to apply your disk Update kit to the copy of your RK06/07 or RL01/02 distribution stand-alone:

- The Update disk
- A copy of your RSX-11M V4.1 distribution kit on disk
- One disk drive to contain the Update disk
- One or more disk drives to contain the copy of your distribution kit

To apply an Update disk kit to an RK06/07 or an RL01/02 distribution kit, you must bootstrap the Update disk to invoke UPDATE.CMD. The update files are then applied to your distribution kit from the Update disk.

NOTE

Update must be applied to a copy of your original RSX-11M V4.1 distribution kit. If you have not made a copy of your distribution kit, refer to Section 4 and make a copy of your distribution kit before continuing.

The following is a step-by-step guide to invoking and applying your Update kit to the copy of your distribution kit:

1. Load the Update disk kit in the drive, write-enabled.
2. Hardware bootstrap the Update disk and enter the time and line width of the console terminal in response to the questions.

You are now ready to answer the questions that the Update procedure asks. If you encounter any errors, Section 7 describes the action you should follow.

The questions that follow are numbered the way they appear on your terminal:

* 1. Have you made a copy of the distribution kit?

Update must be applied to a copy of your distribution kit, not to the original.

If you have made a copy of your distribution kit, answer Yes to this question.

If you have not made a copy of your distribution kit, answer No to this question to exit from the command procedure. You must make a copy of your distribution kit before you apply Update. Section 4 discusses copying your distribution kit. Once you have made a copy of your distribution kit, continue from Section 6 of this document.

* 2. What type of distribution kit do you have? (A, B, or C)

The types of distribution kits are as follows:

A -- Big disk (RP04, RP05, RP06, RM02, RM03, RM05, RM80, RP07, RA60, RA80, or RA81)
B -- RK06 or RK07
C -- RL01 or RL02

Enter the letter (B or C) that corresponds to your distribution kit.

* 3. Drive(s):

Enter the name of one or more disk drives that are to contain the distribution kit.

For example, you might do the following:

```
Drive(s): DM0:

          or

Drive(s): DL2:,DL3:
```

In the first example, DM0: is the name of the disk drive that will contain your distribution kit. In the second example, DL2: and DL3: are the names of the drives that will contain your distribution kit.

* 5. Do you want to keep the original versions of the updated files?

This question is only asked if you have an **RK07 distribution kit**.

Update corrects some files such as .MAC and .CMD files. When these files are corrected, new versions are created. The original versions are not needed to create your updated system.

Answer Yes if you would like to keep all versions of the files.

Answer No if you would like the Update procedure to purge these files.

If your distribution kit is on an **RK06, RL01, or RL02 disk**, this question is not asked. The original versions of the updated files are purged automatically to create space for the new versions.

* 6. Please load the <volume_name> disk from your distribution kit into <ddu:>, then press the RETURN key...

The Update procedure is ready to update your distribution disks. Load the requested disk into the disk drive and press the **RETURN** key. Update will apply the corrections to that disk and then prompt you for the next disk in the distribution kit.

Once the Update procedure has updated each disk in the distribution kit, you must perform a system generation to create an updated system.

To create an updated system, hardware bootstrap the updated RSXM35 disk and start SYSGEN as follows:

```
>@SYSGEN
```

If you are installing an RSX-11M system for the first time, do not begin SYSGEN, but rather turn to Chapter 3 of the RSX-11M System Generation and Installation Guide for instructions on performing a system generation.

7 ERRORS DURING UPDATE

Occasionally, there are some errors that occur from which Update attempts to recover. When such an error occurs, the error message is printed on your terminal with the following list of options:

```
Please select desired action.

    A -- Abort Update
    C -- Continue the Update Procedure (command causing error
         will not be repeated)
    P -- Pause while the error is being resolved
    R -- Repeat command that caused error

Enter code for desired action (A, C, P, or R):
```

If you enter "A," the Update procedure is terminated. Choose this option if you do not understand the circumstances surrounding the error and you want to exit from the Update procedure. You should refer to this guide to make certain you have not overlooked something.

If you choose "C," Update continues with the next command and ignores the error. You might choose this option if the Update procedure's attempt to mount the Update kit disk failed because the disk was already properly mounted.

If you choose "P," the Update procedure pauses until you instruct it to continue. You might choose this option if mounting the Update kit failed because you had the kit mounted improperly for Update. During the pause, you can dismount the kit and then reissue the MOUNT command.

If you choose "R," Update repeats the command that failed. You might choose this option if mounting the Update kit failed because you specified a device that did not contain the Update kit, but the kit is now ready to be read from the specified device.

8 LAYERED PRODUCT FILES

The Update package also includes layered product files for certain layered products.

In the magnetic tape Update package, these layered product update files are on the Update tape in the form of additional backup sets. In the RK06/07 and RL02 disk Update packages, the layered product update files are in directories on the Update disk. In RL01 disk Update package, the layered product files are in directories on the second Update disk labeled M41CLAYPROD.

There is a documentation (.DOC file type) file for each layered product explaining how to apply the corrections to that layered product. For instructions on how to proceed, see the documentation file for the specific layered product for which you want to apply corrections. Sections 8.1 and 8.2 discuss how to access the documentation files.

You should apply any patches to layered products **after** you use the SYSGEN procedure to generate a new system that incorporates the Update Revision C corrections. The layered products require the corrected versions of certain files (for example, SYSLIB.OLB) that are produced in the course of the Update and system generation procedure.

8.1 Accessing the Corrections with the Magnetic Tape Package

If you have the magnetic tape Update package, each product's update files are contained in a separate BRU backup set on the Update tape kit. You must restore the backup set from the tape to the disk before you can apply the layered product corrections. Use the BRU utility to restore the backup set to disk, then type or print the appropriate .DOC file (see Table 1) for further instructions.

The following example explains how to restore the BRU backup set for FORTRAN-77. For other layered products, substitute the correct backup set name.

To restore a backup set, mount the Update kit magnetic tape. For example, if the Update tape is loaded on drive MM0: and the disk to which you want to copy the FORTRAN-77 backup set to is DM0: (an RK07 mounted as a Files-11 volume), use the following MCR command line:

```
> MOU MM0:/W
> BRU /NOINI/UFD/DENS:1600/SUP/BAC:F77 MM0:  DM0:/W
```

If you have an 800 bpi Update kit tape, substitute /DENS:800 in the command line above.

8.2 Accessing the Corrections on the RK06/07 or RL01/02 Update Package

If you have the RK06/07 or RL01/02 disk Update package, mount the Update disk as a Files-11 volume and type or print the appropriate documentation file (see Table 1 for a list of the available documentation files).

You can display an instruction file at your terminal using the following command line, replacing ddnn: with the name of the drive containing the Update disk and replacing [ggg,mmm] with the appropriate directory specification chosen from Table 1:

```
>PIP TI:=ddnn:[ggg,mmm]product.DOC RET
```

You can copy the contents of selected directories to disk by creating the necessary directories using the MCR UFD command, and then using PIP. For example, if you want to copy the contents of UFD [252,200] from an RK07 Update disk mounted on DM1: to your system disk mounted on DM0:, use the following MCR command sequence:

```
>UFD DM0:[252,200] RET
>PIP DM0:[252,200]/CD/FO/SU=DM1:[252,200] RET
```

Refer to Table 1 for a list of the directories that contain the various layered product Update files.

8.3 Layered Product Update File Reference List

Table 1 lists the layered products update files and their respective directories.

Table 1
Layered Product Update File
Reference List

Layered Product	Directories Used	Backup Set	Documentation File Name
Datatrieve-11 V2.04	[222,200]	DTREVE	[222,200]DTREVE.DOC
DECnet-11M V3.1	[225,200] [225,20] [225,40] [230,20] [230,40]	DECNET	[230,200]DECNET.DOC
DPM V4.1	[236,200]	DPM	[236,200]DPM.DOC
FMS-11/RSX V1.0	[244,200]	FMS	[244,200]FMS.DOC
KED V1.1	[256,200]	KED	[256,200]KED.DOC
PDP-11 BASIC-PLUS-2 V2.1	[211,200]	BP2	[211,200]BP2.DOC
PDP-11 COBOL V4.4	[215,200]	C11	[215,200]C11.DOC
PDP-11 FORTRAN-IV V2.6	[245,200] [245,1]	F77DBG	[245,200]FORTIV.DOC
PDP-11 FORTRAN-77 DEBUG V1.0	[247,200] [247,1]	F77DBG	[247,200]F77DBG.DOC

(continued on next page)

Table 1 (Cont.)
Layered Product Update File
Reference List

Layered Product	Directories Used	Backup Set	Documentation File Name
PDP-11 FORTRAN-77/RSX V5.0	[246,200] [246,1]	F77	[246,200]F77.DOC
PDP-11 SORT/MERGE V2.0	[311,200]	SORT	[311,200]SORT.DOC
RSX-11 2780/3780 protocol emulator V4.1	[301,200] [301,24] [301,26]	2780	[301,200]2780.DOC

9 RSX-11S DISTRIBUTION PACKAGE AND UPDATE

If you have an RSX-11S V4.1 operating system, the Update kit you receive is a replacement for your original RSX-11S distribution kit.

The Update kit contains a fully corrected version of your original RSX-11S distribution kit. All the software corrections that the Update procedure normally applies, have been applied. Corrections that are unique to your software operating system have been applied as well.

Your updated RSX-11S kit is one of the following:

- Magnetic tape kit (800 or 1600 bpi)
- RK06/07 disk kit
- RL01/02 disk kit

If you received a magnetic tape Update kit, this package replaces your current distribution kit. Chapter 4 of the RSX-11S V4.0 System Generation and Installation Guide and Chapters 1 and 3 of the RSX-11M/RMS-11/RSX-11S V4.1 Release Notes provide information on running the system generation procedure.

If you received an RK06/07 Update kit or an RL01/02 Update kit, that Update replaces your current distribution kit. To use your new distribution kit, you must run the system generation procedure. Chapter 4 of the RSX-11S V4.0 System Generation and Installation Guide and Chapters 1 and 3 of the RSX-11M/RMS-11/RSX-11S V4.1 Release Notes describe the procedure you must follow.

The DECNET layered product is included on your new distribution kit. Table 1 in Section 8.3 lists the DECNET layered product and its respective directory.

Section 10 contains notes on the new and changed functionality that is included in your new distribution kit.

NOTE

If you perform your RSX-11S System Generation online on an RSX-11M V4.1 host system, you **must** apply Update C to the RSX-11M system first. The RSX-11S system generation procedure uses files on the RSX-11M V4.1 distribution kit disk that are updated by the Update procedure. If you do not apply RSX-11M V4.1 Update C before performing the RSX-11S system generation, the Update C components may not be integrated correctly into your RSX-11S system.

10 UPDATE NOTES

The Update Notes contain information specific to Update C. There is information in these Notes of interest to all those who are applying this Update.

These Notes include information on rebuilding user tasks after you have applied this Update, and notes on new and altered functionality that results from application of Update Revision C.

10.1 Information on the Correction Files in This Update

This section contains descriptions of all of the problems addressed in this Update. Included with each problem description is a list of the files that pertain to the correction of the problem.

The information in this section is provided for reference only. Most users can and should follow the procedures for applying this Update without being concerned about the specifics of the correction files.

If you have modified the Executive, drivers, or system utilities, however, you may need to apply the corrections selectively or to modify them to suit your altered software.

The files (.COR file type) listed in this section were used to create some of the replacement files used by the Update procedure. These files are included to document the changes made by this Update to those portions of the system software for which MACRO-11 source code is supplied on the RSX-11M V4.1 distribution kit. You may edit them to suit your needs and apply them manually to your RSX-11M system. Note, however, that doing so may affect DIGITAL's ability to answer Software Performance Reports concerning difficulties you may have with modified Executive, driver, or utility code. You should use the Update procedure and apply all the corrections unless you have sufficient need and expertise to do otherwise.

The following is a list of the problem statements and pertinent files:

Problem Statement

The following correction files implement the new functionality included in this Update.

Correction Files

[1,60]EDTHELP.HLP
[1,60]EDTBLD.COR
[1,60]FCSRS1BLD.COR

```
[1,60]RMDBLD.COR
[1,60]VMRBLD.COR
[11,60]TTDAT.COR
[11,60]TTICH.COR
[11,60]TTSUB.COR
[12,60]DV2OV.COR
[12,60]SPSOV.COR
[12,60]SX2OV.COR
[12,64]DV2OV.OBJ
[12,64]SPSOV.OBJ
[12,64]SX2OV.OBJ
[14,60]TERMID.COR
[14,60]TERMID.OBJ
[14,64]TERMID.OBJ
[23,60]MACRO.COR
[23,64]MACRO.OBJ
[30,60]EDTLIB.OLB
[50,60]FCSFSR.OBJ
[50,60]FCSLB1.OBJ
[50,60]FCSLB2.OBJ
[50,60]FCSST1.OBJ
[50,60]FCSST2.OBJ
[50,60]FLUSH.OBJ
[50,60]FSREXT.OBJ
[53,60]RMSDAP.INS
[53,60]RMSDAPNEP.INS
[53,60]RMSLIB.INS
[53,60]RMSLIBNEP.INS
[61,60]EXEDF.OBJ
[61,60]TTSYM.MAC
[61,60]UCBDF.MAC
[70,60]SDSOV.OBJ
[70,60]SPROV.OBJ
[200,60]SYSGEN.COR
[200,60]SYSGEN2.COR
[200,60]SYSGEN3.COR
[200,60]SGNEXEC.COR
[200,60]SGNBLDDRV.COR
```

Problem Statement

The RX02 controller for the LSI-11 bus, the RXV21, does not support 22-bit addressing. Because the RXV21 controller cannot perform DMA into the total range of addresses on a 22-bit system, RSX-11M has not supported the RXV21 controller. Using the RXV21 controller on a 22-bit LSI-11 bus system causes a crash. (See Section 10.7 for more information.)

Correction Files

```
[1,60]LOABLD.COR
[1,60]MCMBLD.COR
[1,60]MCRBLD.COR
[11,60]DYCOM.MAC
[11,60]DYDRV.COR
[12,60]ERMSG.COR
[12,60]ERRMSG.COR
[12,60]LDCTL.COR
[12,60]MCRDEF.COR
[12,60]SRTOV.COR
[12,60]ST3OV.COR
[12,64]ERMSG.OBJ
```

```
[12,64]ERRMSG.OBJ
[12,64]LDCTL.OBJ
[12,64]MCRDEF.OBJ
[12,64]SRTOV.OBJ
[12,64]ST3OV.OBJ
[200,60]SGNPER.COR
[200,60]SYSGEN2.COR
[200,60]SGNBLDDRV.COR
```

Problem Statement

Two enhancements have been included in the RX02 device driver that supports 22-bit addressing on QBUS processors:

- Do not buffer the data when the user task is in 18-1bit address space.

- When calling the executive routine BLXIO, do not move large chunks of data all at once since this will tie up system resources.

Correction Files

[11,60]DYDRV.COR

Problem Statement

If the following SYSGEN options have been chosen, DMDPV will assemble with errors:

```
No EIS support            - M$$EIS not in RSXMC
No user-mode diagnostic   - D$$IAG not in RSXMC
No ECC support            - S$$ECC not in RSXMC
Include offset recovery   - R$$60F in RSXMC
```

Correction File

[11,60]DMDRV.COR

Problem Statement

The error recovery code of DRDRV is incorrect and will never correct any recoverable errors, always retrying the operation, and if it continues with the same error, reporting the error as "hard."

Correction File

[11,60]DRDRV.COR

Problem Statement

In using the Queue Manager, when a line printer goes off line while printing a file that contains embedded vertical control characters and then comes back on line, the current line is not reprinted at the position the printer was at when it went off line, but on a new line. When the same file is printed using PIP, the line is printed at the proper position.

Correction Files

[11,60]LPDRV.COR
[1,60]LPPBLD.COR

Problem Statement

If a user-written delete-check routine is used with LPP (as described in LPPBLD.CMD), a file that the user-written delete-check routine has not marked for automatic deletion is not deleted even when a user prints that file using the /DE switch.

Correction Files

[121,64]PRTDN.OBJ
[1,60]LPPBLD.COR

Problem Statement

The user reported the following problems with the despooler task LPP when using the LA100 letter printer:

1. The despooler did not set the printer to produce letter quality printouts.

2. The despooler reset the top of the form incorrectly when changing between 80 and 132 column mode.

Correction Files

[121,64]JOBSTR.OBJ

Problem Statement

When a file that contains formfeed characters in any position other than the first character is printed using simulated forms, the file will print successfully but the file will not be deleted from the queue causing the print despooler to stall.

Correction Files

[121,64]IOPRT.OBJ

Problem Statement

If the print despooler has been stopped and is then restarted at a page greater than the current page, the despooler abandons the current file of the active job. Another symptom of this problem is that the despooler will stop printing at a null record in a file with null record attributes.

Correction Files

[121,64]IOPRT.OBJ

Problem Statement

During low pool conditions, the console driver, CODRV.TSK, may crash the system.

Correction File

[11,60]CODRV.COR

Problem Statement

DUDRV will sometimes report some hard errors as soft errors and some soft errors as hard errors.

Correction File

[11,60]DUDRV.COR

Problem Statement

If a loadable RSX-11M DUDRV is UNLOADed and then LOADed the driver may not work. Also, the system can possibly be corrupted. When the driver is unloaded its associated controllers are not disabled. Therefore, the controllers can still perform unsolicited DMA to buffers within the driver area. If it is necessary to replace DUDRV it should be VMR UNLOADed. However, a change has been made to the driver so that it will always work when MCR is UNLOADed and then LOADed. But, if the driver is reloaded into a different memory area the user must be sure not to reuse the previous memory area until the driver has been reloaded and used.

Correction Files

[11,60]DUDRV.COR

Problem Statement

The length of the random channel list in LADRV is computed incorrectly. There is also a misplaced lable, and the documentation for LPA QIOs from MACRO is incomplete.

Correction Files

[11,60]LADRV.COR

Problem Statement

MMDRV returns IE.EOF and not IE.EOV for IO.SPB from BOT and encountering an immediate tape mark.

Correction Files

[11,60]MMDRV.COR

Problem Statement

MMDRV COMRTY routine execution causes the system to crash.

Correction Files

[11,60]MMDRV.COR

Problem Statement

1. IO.SPB and IO.SPF reverse positioning requests that encounter a tape mark return different status.

2. IO.SPB and IO.SPF requests for tape positioned beyond LEOV are not carried out.

Correction Files

[11,60]MMDRV.COR

Problem Statement

An unrecoverable tape error on an MS: device results in a system crash.

Correction Files

[11,60]MSDRV.COR

Problem Statement

If an MS: device is not ready, the message:

***MS0: -- Select error

is output to the console every 2 seconds.

Correction Files

[11,60]MSDRV.COR

Problem Statement

To initiate a call on the DF03-AC modem, the line characteristic TC.DLU must be set to a value of two. However, this setting prevents detecting loss of carrier. Changing the TC.DLU characteristic to a value of one after the connection has been established would remedy this; however, the line is hung up when that characteristic is modified.

Correction Files

[11,60]TTATT.COR

Problem Statement

SAV does not correctly size RF11 disks.

Correction Files

[12,60]SAVSIZ.COR
[12,60]SAVSIZ.OBJ
[12,64]SAVSIZ.OBJ
[1,60]SAVBLD.COR

Problem Statement

If a cluster library is not the last library that a task is linked to, SAV will remove the task at boot time, with the error message:

SAV - Task active in another system - task removed XXXXXX

Correction Files

[12,60]SAVINS.COR
[12,60]SAVINS.OBJ
[12,64]SAVINS.OBJ

Problem Statement

On RSX-11M or RSX-11S V4.1 systems with 22-bit support running on a system with 128K words of memory, the system crashes on the virgin boot.

Correction File

[11,60]INITL.COR

Problem Statement

When console logging is in effect and the console terminal is disabled, a task spawned on CO: fails to detach when it completes execution.

Correction File

[200,60]SGNPER.COR

Problem Statement

The base level of the target system was revised to reflect the current Update.

Correction Files

[200,60]SYSGEN.COR
[200,60]SYSGEN2.COR

Problem Statement

The size of several tasks that reside in SYSPAR has increased, so the minimum size of SYSPAR given in the SYSVMR.CMD file has been increased from 10100(8) to 10300(8) bytes.

Correction Files

[200,60]SYSGEN.COR

Problem Statement

The following DCL command line is not translated to the correct MCR command line:

SET /TERMINAL/TYPEAHEAD[:n]

Correction Files

[23,60]SET1.COR
[23,60]TSET.COR
[23,64]SET1.OBJ
[23,64]TSET.OBJ

Problem Statement

The following DCL command line should not accept the :acpname argument:

MOUNT ddu:label/PROCESSOR:UNIQUE[:acpname]

Correction Files

[23,60]MOUNT.COR
[23,64]MOUNT.OBJ

Problem Statement

In RSX-11M-PLUS V2.1, the qualifier in the following DCL command is translated incorrectly:

LINK/NORECEIVE

The preceding command line yields the following incorrect command line:

TKB -RE

The correct translation is as follows:

TKB -SE

Correction Files

[23,60]TLINK.COR
[23,64]TLINK.OBJ

Problem Statement

If you use the /MEMORY_MANAGEMENT:n switch with the DCL LINK command, the argument n is properly passed to the Task Builder. If you use the /NOMEMORY_MANAGEMENT:n switch, however, the argument n is not passed to the Task Builder.

Correction Files

[23,60]TLINK.COR
[23,64]TLINK.OBJ

Problem Statement

The /NOJOURNAL (/-JOURNAL) switch does not work in the following DCL command:

EDIT/EDT/NOJOURNAL filename.typ

Correction Files

[23,60]EDIT.COR
[23,64]EDIT.OBJ

Problem Statement

The DCL command FORT /LIST translates to /LI:3 for FORTRAN IV and /LI:2 for FORTRAN-77. These are the compiler defaults and indicate that the compiler listing should contain the source code and a storage map but no binary machine code.

The command qualifiers /NOSOURCE, /NOMAP, /NOMACHINECODE have no effect on the FORTRAN command. The command is still translated using the compiler defaults. Also, rebuilding either compiler with nonstandard defaults has no effect on the DCL translation of the command.

Correction Files

[23,64]FORTRAN.COR
[23,64]FORTRAN.OBJ

Problem Statement

The /PAD qualifier of the DCL CONVERT command does not allow specifying a quoted character. As a result the only way to pad with an ASCII character 0 through 7 is to specify the octal value for the character.

Correction Files

[23,64]CONVERT.COR
[23,64]CONVERT.OBJ

Problem Statement

The DCL command "STOP/ABORT" fails with the message "Stop what?" rather than prompting the user for a particular processor.

Correction Files

[23,64]STOP.COR
[23,64]STOP.OBJ

Problem Statement

There are various problems in DCL. The following is a general description.

1. The /PROTECTION qualifier for the MOUNT, BACKUP, and CREATE commands were erroneously translating an asterisk (*) for fields that should be left blank.

2. There was incorrect error handling and parsing for certain qualifiers of the DIFFERENCES command.

3. If TKB was not installed in the system, DCL LINK would delete the file ATLNK.CMD before TKB could access it.

4. To support new settable terminal characteristics, the following SET TERMINAL and SHOW TERMINAL qualifiers have been added:

```
SET TERMINAL[:TTnn:]/qual
SHOW TERMINAL[:TTnn:]/qual

                        /[NO]ADVANCED_VIDEO
                        /[NO]ANSI_CRT
                        /[NO]BLOCK_MODE
                        /[NO]DEC_CRT
                        /[NO]EDIT_MODE
                        /PARITY[:EVEN or :ODD]
                        /NOPARITY
                        /[NO]REGIS
                        /[NO]SOFT_CHARACTERS
                        /VT200_SERIES
```

5. The DCL commands:

```
START/PRINTER processorname/NEXT_JOB
START/PRINTER processorname/BACKSPACE:n
START/PRINTER processorname/FORWARDSPACE:n
START/PRINTER processorname/AT_PAGE
```

   did not translate to the correct MCR equivalent commands.

6. The CANCEL command did not work correctly.

7. Correct the syntax of MACRO/SHOW:NOxxx. Force /SHOW and /NOSHOW to generate a listing file.

Correction Files

```
[23,60]START.COR
[23,60]EDOC.COR
[23,60]BACKUP.COR
[23,60]STOP.COR
[23,60]DIFFERENC.COR
[23,60]DELETE.COR
[23,60]DSPCMD.COR
[23,60]SET1.COR
[23,60]TSET.COR
[23,60]SHOW.COR
[23,60]TSHOW.COR
[23,60]COPY.COR
[23,64]START.OBJ
[23,64]EDOC.OBJ
[23,64]BACKUP.OBJ
[23,64]STOP.OBJ
[23,64]DIFFERENC.OBJ
[23,64]DELETE.OBJ
[23,64]DSPCMD.OBJ
[23,64]SET1.OBJ
[23,64]TSET.OBJ
[23,64]SHOW.OBJ
[23,64]TSHOW.OBJ
[23,64]COPY.OBJ
```

Problem Statement

DCL allows multiple invocations of the indirect command processor. This will lock out the terminal from issuing DCL commands.

The first copy of AT. is created and named AT.Tnn correctly. However, if no other user is running ...AT., DCL will allow you to run ...AT. even though AT.Tnn is already active on the issuing terminal. This has the effect of locking the terminal out of issuing DCL commands until the command processor exits. The initial copy of AT. seems to run to completion, however, the second copy rarely does and must be aborted from another terminal by a privileged user. If the task ...AT. is running, the second invocation will result in an "MCR -- Task active" error.

Correction Files

[23,60]DSPCMD.COR
[23,64]DSPCMD.OBJ

Problem Statement

The DCL command 'BAC @filespec' does not work. When entered, it results in an 'Illegal filespec' error from DCL.

Correction Files

[23,60]BACKUP.COR
[23,64]BACKUP.OBJ

Problem Statement

The DCL command 'STOP/QUEUE/MANAGER/ABORT' does not correctly translate to the MCR command 'QUE /STOP:QMG:AB'. The command passed to MCR is 'QUE /STOP:QMG/AB' which results in a 'Bad job switch value' error message from QUE.

Correction Files

[23,60]STOP.COR
[23,64]STOP.OBJ

Problem Statement

If a user-mode instruction and data space task is being task-built, under certain conditions the task build may abort with the following error message:

I/O error on output file XXXXXX

Correction Files

[31,60]ADRST.OBJ
[31,60]ADRSM.OBJ

Problem Statement

The Task Builder does not correctly set the APR bitmap for the PDP-11 FORTRAN-77 OTS when building an instruction and data space task that uses virtual arrays.

Correction Files

[31,60]P4MAL.OBJ
[31,60]SGALO.OBJ

Problem Statement

The Task Builder does not correctly build overlaid instruction and data space tasks that have overlay segments containing only read-only code and data.

Correction File

[31,60]P5EOS.OBJ

Problem Statement

The Task Builder does not properly process the read-only section of a memory-resident overlaid multiuser instruction and data space task.

Correction File

[31,60]P5IMG.OBJ

Problem Statement

If a user is linking to a cluster library group and one of the library elements is not memory-resident overlaid, the Task Builder will not flag the error.

Correction Files

[31,60]ERMSG.OBJ
[31,60]P2LBR.OBJ
[31,60]P2POP.OBJ
[31,60]TABLS.OBJ

Problem Statement

In the Task Builder, correct the test of the window block pointers so that a null-rooted cotree of a memory-resident multiuser task does not get incorrect address information set in it.

Correction Files

[31,60]SGALO.OBJ
[31,60]MLSG0.OBJ

Problem Statement

The Task Builder VSECT option does not work correctly. When building certain tasks that utilize the VSECT option, the Task Builder may issue the diagnostic message "Task has illegal memory limits."

Correction Files

[31,60]P2POP.OBJ
[31,60]SGALO.OBJ

Problem Statement

When building a large user-mode I/D task, TKB may abort with an odd address trap. If the same task is built /-ID, the build completes.

Correction Files

[31,60]P5EOS.OBJ

Problem Statement

The Fast Task Builder (FTB), upon detection of multiply defined symbols, prints an error message with a garbled module name and symbol name.

Correction File

[106,60]P3MDS.OBJ

Problem Statement

When using the Slow Task Builder to build large, heavily overlaid tasks, one of several errors may occur. The exact failure mode is dependent on several things.

1. The physical size of the task being built.
2. The library requests, that is, cluster libraries, commons, and so forth.
3. The overlay structure.
4. The number of input modules or object libraries used.
5. The number of global symbols defined.

The Task Build failure modes, if detected and processed by the Slow Task Builder, may be, but are not limited to, the following:

1. An illegal input module format.
2. Undefined symbols that are known to be defined.
3. Failure to find one or more input modules.

The failure modes of a built task may be, but are not limited to, the following:

1. Breakpoint traps through the overlay runtime system module $$ALERR.
2. Odd address traps, reserved instruction traps, or memory protect violations.

Correction Files

[31,60]SLSCR.OBJ

Problem Statement

SGNKLAB exits with an undefined symbol LPS1.

Correction File

[200,60]SGNKLAB.COR

Problem Statement

If more than one IP: device is included in a system, and the IP: driver is loadable, the Task Builder will find two undefined symbols when building the Exec.

Correction Files

[200,60]SGNIP.COR

Problem Statement

The K series routines will not enable an AD11-K A/D converter if no KW11-K clock is included in the system.

Correction Files

[45,60]KADSWP.COR

Problem Statement

In the MCR QUE command, when the ABO argument is used with the /STO switch, the current jobs should be held. Instead, they get deleted. The following command lines cause this problem to occur:

```
QUE LP0:/STO:ABO
QUE /STO:QMG:ABO
```

Correction Files

[25,64]QMGASS.OBJ
[25,64]QMGSTA.OBJ
[1,60]QMGBLD.COR

Problem Statement

The command QUE /EN:xxx/FI:1/DEL does not delete the file, but it does renumber the files shown for that job when a QUE /LI is done.

Correction Files

[25,64]QMGMOJ.OBJ
[1,60]QMGBLD.COR

Problem Statement

If the null device is spooled and then unspooled, the system will be hung looping in kernel mode.

Correction Files

[25,64]QMGASS.OBJ

Problem Statement

SLP returns exit status of 1 (success), even if the checksum failed to verify. SLP does, however, correctly report exit status when it encounters other problems. For example, a command error returns 4.

Correction Files

[40,60]SLPR11.OBJ
[1,60]SLPBLD.COR

Problem Statement

During a restore of a multidisk backup set to a mounted disk, BRU issues I/O error messages when restoring the second disk of the set.

Correction Files

[74,60]DSKIO.OBJ
[74,60]MDWR.OBJ

Problem Statement

If RMD is aborted while running from the clock queue, device CL: disappears from the system.

Correction Files

[14,60]RMDEMO.COR
[14,60]RMDEMO.OBJ
[14,64]RMDEMO.OBJ

Problem Statement

The occupied amount of memory for tasks and the necessary memory for checkpointed tasks are incorrect on the Memory Display Page of RMDEMO. The value displayed is half of the memory that is actually in use.

Correction Files

[14,60]MDPAGE.COR
[14,60]MDPAGE.OBJ
[14,64]MDPAGE.OBJ

Problem Statement

On a system with a large amount of memory, the figures displaying the total memory used by active tasks in and out of memory are truncated.

Correction Files

[14,60]MDPAGE.COR
[14,60]MDPAGE.OBJ
[14,64]MDPAGE.OBJ

Problem Statement

Several problems have been discovered with the Indirect Command Processor (ICP). They are as follows:

1. Enabling/disabling of Escape Sequence processing does not work.

2. The ESCAPE-SEQ operating mode cannot be tested with .IFENABLED or .IFDISABLED.

3. If a .TESTFILE is done after a .OPENx statement, ICP incorrectly reports a syntax error when attempting to access the variable <FILATR>.

4. Numeric operators .INC/.DEC do not report numeric overflow/underflow.

5. ICP, when running from a privileged terminal, will delete files to which correct access is not accorded.

6. ICP does not correctly handle .IFLOA/.IFNLOA device testing if the device names are given in lowercase.

Correction Files

[31,60]ICPERR.COR
[31,60]ICPPRE.COR
[31,60]ICPSY1.COR
[31,60]ICPONR.COR
[31,60]ICPSTP.COR
[31,60]ICPIF2.COR
[31,60]ICPGOT.COR
[31,60]ICPAS5.COR
[31,60]ICPFCL.COR
[31,60]ICPIF3.COR
[31,60]ICPIMP.COR
[31,60]ICPERR.OBJ
[31,60]ICPPRE.OBJ
[31,60]ICPSY1.OBJ
[31,60]ICPONR.OBJ
[31,60]ICPSTP.OBJ
[31,60]ICPIF2.OBJ
[31,60]ICPGOT.OBJ
[31,60]ICPAS5.OBJ
[31,60]ICPFCL.OBJ
[31,60]ICPIF3.OBJ
[31,60]ICPIMP.OBJ
[31,64]ICPERR.OBJ
[31,64]ICPPRE.OBJ
[31,64]ICPSY1.OBJ
[31,64]ICPONR.OBJ
[31,64]ICPSTP.OBJ
[31,64]ICPIF2.OBJ
[31,64]ICPGOT.OBJ
[31,64]ICPAS5.OBJ
[31,64]ICPFCL.OBJ
[31,64]ICPIF3.OBJ
[31,64]ICPIMP.OBJ

Problem Statement

The Right/Left justify format control in the Indirect Command Processor does not correctly format signed numbers with leading zeros. For example, consider the following:

```
.ENABLE SUBSTITUTION,DECIMAL
.SETN NEG -55.
; NEG = 'NEG%DSZR4'
; NEG = 'NEG%DSZL4'
.EXIT
```

In this example, the output should be:

```
NEG = -055
NEG = -055
```

Instead, ICP outputs the following:

```
NEG = -005
NEG = -005
```

Correction Files

[55,60]CBTA.OBJ

Problem Statement

After applying the patch, MOUFOR.COR, to MOUNT as published in the Software Dispatch for March 1983 (5.1.10.2), page 99, the command:

MOUNT XX:/FOR/ACP=UNIQUE

will crash the system.

Correction Files

[12,60]MOUFOR.COR
[12,64]MOUFOR.OBJ
[122,60]MOUBLD.COR

Problem Statement

On systems with an RP02 or RP03 system disk the Error Log Report Generator (RPT) exits with a file read error when trying to read control file modules from the control file library (LB:[1,6]ERRLOG.ULB).

Correction Files

[122,60]RPTBLD.COR

Problem Statement

1. TDX does not respond with the correct version number upon receiving the "TDX" command.

2. TDX's CVT TPARS table is not terminated by a STATE$. This may cause a system crash if an expression is entered which matches the last TRAN$ in the table. Also, the requirement for a terminating STATE$ is not adequately documented in the IAS/RSX-11 I/O Operations Reference Manual (pp. 7-14) and is not used in two out of the three supplied examples.

3. TDX does not handle the RAD50 characters "." and "#" correctly.

The enclosed correction file fixes the technical problems and removes the restriction of forcing four hex digits and three RAD50 characters. It also allows the use of "_#" as a meta-character for the "#" in RAD50 expressions.

Correction Files

[24,60]TDX.COR
[24,60]TDX.OBJ

Problem Statement

Attempting to mount a labeled ANSI or unlabeled tape on an offline tape drive results in the message "INSUFFICIENT PRIVILEGE FOR ATTEMPTED OPERATION". Attempting the mount under a privileged UIC results in the same error.

Correction Files

[22,60]MMOVFO.OBJ
[22,64]MMOVFO.OBJ

Problem Statement

If FLX is used to access a device whose driver is not loaded, an endless stream of "Device Handler Missing" messages is output to the user's terminal. FLX must then be aborted by hand.

Correction Files

[33,60]RLSE.OBJ
[122,60]FLXBLD.COR

Problem Statement

If an FLX command is given that contains an illegal switch, FLX displays an error message to that effect. The next command entered, whether valid or not, causes FLX to abort.

Correction Files

[33,60]GETCMD.OBJ
[122,60]FLXBLD.COR

Problem Statement

FLX does not support DU devices.

Correction Files

[33,60]DEVTAB.OBJ
[33,60]GETDEV.OBJ
[33,60]FILEX.OBJ
[122,60]FLXBLD.COR

Problem Statement

VMR allows an RSX-11S 123 kword, or greater, system image to be saved on a RX01, or single density RX02 floppy disk. When the resulting disk is hardware booted, a seek error results (after the image has apparently been read into memory) and the system then halts. If $SYSIZ is zapped to indicate a system size of 122 kwords and the image resaved, the resultant disk will hardware boot with no problem.

Correction Files

[70,60]SAVLD.OBJ

Problem Statement

Unloading a driver may crash the system.

Correction Files

[12,60]UNLCTL.COR
[12,64]UNLCTL.OBJ
[122,60]UNLBLD.COR

Problem Statement

When attempting to analyze a crash dump file, CDA exited with the following message:

CDA -- EXITING DUE TO ILLEGAL TRAP - SNAPSHOT DUMP BEING ATTEMPTED

Correction Files

[117,60]GTBLK.OBJ
[122,60]CDABLD.COR

Problem Statement

The following corrections have been made to RMS:

1. DAP did not accept a call from a machine running P/OS.

2. IFL had a corruption problem that led to "invisible" records. In cases where bucket splitting at the data record level propagated bucket splitting at levels 1 and 2 as well, an incorrect high key value was written into the high level 2 root. This incorrect high key value made it appear that the records below were not the ones being searched for.

3. DES needed a special command file containing a GBLDEF for suc.fl in order to rebuild correctly.

4. RMSRESSUB.TSK did not contain the Update B modification to R1RLBK in RMSLIB.OLB.

Solution

New versions of DAP and IFL as follows:

DAP- Dap can now be used via P/OS. This change is made in a new RMSDAP.OLB and a new DAPRES.TSK as well (built against that library).

IFL- IFL has been fixed to correct the corruption problem. The change has been incorporated into a new RMSUTL.OLB and a new task image has been created. Note that new command files have been issued in order to allow for greater use of the stack. It will be necessary to reload data files via IFL (which gets records sequentially).

DES- DES has been fixed and can be rebuilt with the command file from distribution. The change has been incorporated in the updated RMSUTL.OLB and a new task image has been issued.

RMSRESSUB- A new version of this subset-library has been built to correct it.

Correction Files

[53,60]RMSLIB.INS
[53,60]RMSLIBNEP.INS
[53,60]RMSDAP.INS
[53,60]RMSDAPNEP.INS
[53,60]RMSIFL.NEP
[53,60]RMSDES.NEP
[53,60]RMSRES.TSK
[53,60]DAPRES.TSK
[53,60]RMSRESSUB.TSK
[53,60]RMSDES.TSK
[53,60]RMSIFL.TSK
[53,60]IFLNON.CMD
[53,60]IFLNRN.CMD

Problem Statement

On unmapped systems with TKTN installed, if a tasks exits with outstanding I/O the system will crash with memory overwritten.

Correction Files

[12,60]TKTN.COR
[12,60]TKTN.OBJ
[12,64]TKTN.OBJ

Problem Statement

The BRU64K system does not include terminal XON/XOFF support, which causes problems if the console terminal is a VT100.

Correction Files

[1,60]BRU64K.SYS
[1,60]BRU64K.STB

10.2 DHV11 Asynchronous Terminal Interface Support

Support has been included in Update C of RSX-11M Version 4.1 and RSX-11M-PLUS Version 2.1 for the DHV11 asynchronous terminal interface. The DHV11 is a Q-bus multiplexer which handles 8 lines at speeds up to 19.2K baud with full modem control. To include DHV11 support during SYSGEN, select drive YH after specifying a Q-bus processor. Until Update D, Autoconfigure will not report the existence of a DHV11.

The Full-Duplex Terminal Driver must be selected during an RSX-11M SYSGEN to use the DHV11.

The terminal driver has been corrected in Update C to allow the TC.DLU characteristic to be switched between values of one (dial-in only) and two (dial-in and dial-out) without hanging up the line. This allows a task to determine whether the called party has disconnected. For security reasons, the line will continue to be dropped whenever the line changes state from remote to local or from local to remote.

Commands have been added that allow the setting and inquiry of several new functions for terminals serviced by the Full-Duplex Terminal Driver.

The following new functions have been added:

1. **Parity Enable and Sense:** Prior to Update C, parity could only be controlled using the QIO mechanism. Even parity is the default. Enabling parity does not change the number of data bits, which is fixed at eight.

2. **Advanced Video Option:** This adds the capacity for flashing or bold character fields and a full screen of 132 character lines to a VT100 family terminal.

3. **ANSI CRT:** Terminal supports ANSI standard escape sequences.

4. **DEC CRT:** Terminal supports DIGITAL private escape sequences.

5. **Terminal Edit:** Terminal supports ANSI-defined advanced editing functions.

6. **Regis Graphics:** Terminal supports Regis graphics.

7. **Soft Characters:** Terminal supports loadable character fonts.

8. **Block Mode:** Terminal has block mode capability.

The following table of characteristics is an addition to Table 2-5 of the RSX-11M/M-PLUS I/O Drivers Reference Manual:

Characteristic	Octal Value	Meaning(1=YES)	MCR Command
TC.PAR	31	Parity enable (1=Yes)	SET /PARITY=TTnn:
TC.EPA	32	Parity sense (1=Even)	SET /PARITY=TTnn:EVEN
TC.AVO	123	Advanced Video Option	SET /AVO=TTnn:
TC.ANI	122	ANSI CRT	SET /ANSI=TTnn:
TC.DEC	124	DEC CRT	SET /DEC=TTnn:
TC.EDT	125	Terminal Editing	SET /EDIT=TTnn:
TC.RGS	126	Regis Graphics	SET /REGIS=TTnn:
TC.SFC	131	Loadable Character Fonts	SET /SOFT=TTnn:
TC.BLK	42	Block Mode Capability	SET /BLKMODE=TTnn:

The following table below shows the DCL syntax for each of these commands. As with all SET commands, the MCR SET /qualifier has the effect of listing all terminals with that attribute. The DCL SHOW qualifier command has the same effect.

MCR Commands	DCL Commands *
SET /[NO]PARITY=TTnn:	SET TERM[:TTnn:]/[NO]PARITY
SET /PARITY=TTnn:EVEN	SET TERM[:TTnn:]/PARITY:EVEN
SET /PARITY=TTnn:ODD	SET TERM[:TTnn:]/PARITY:ODD
SET /[NO]AVO=TTnn:	SET TERM[:TTnn:]/[NO]ADVANCEDVIDEO
SET /[NO]ANSI=TTnn:	SET TERM[:TTnn:]/[NO]ANSICRT
SET /[NO]DEC=TTnn:	SET TERM[:TTnn:]/[NO]DECCRT
SET /[NO]EDIT=TTnn:	SET TERM[:TTnn:]/[NO]EDITMODE
SET /[NO]REGIS=TTnn:	SET TERM[:TTnn:]/[NO]REGIS
SET /[NO]SOFT=TTnn:	SET TERM[:TTnn:]/[NO]SOFTCHARACTERS
SET /[NO]BLKMOD=TTnn:	SET TERM[:TTnn:]/[NO]BLOCKMODE

* [:TTnn:] defaults to TI: if not specified.

The MCR DEV TTnn: and the DCL SHOW TERM commands have been modified to indicate the state of these attributes.

10.3 FCS Changes

Update C contains a few changes to FCS that are described in the following sections.

10.3.1 **FCS Buffering Corrections** - Several deficiencies exist in FCS multi-buffering and big buffering. Some problems have been fixed and one is a restriction which may be fixed in a future update or release. Following is a description of the problems and restrictions:

1. A task using both GET and PUT in random mode and FCS multi-buffering and big buffering does not function properly when using records which are 512 bytes or larger. It may create a corrupt file.

2. If using multi-buffering, a task may exit with outstanding I/O or unexpectedly encounter an "End of File" error when closing files.

3. Using big buffering with random GET and PUT can cause loss of data from the end of a file. In this case a directory of the file will indicate that it has more blocks in use than it has allocated. See the following paragraph for more information.

4. When using multi-buffering or big buffering in random mode, a user record buffer is ALWAYS required. If one is not supplied, the task's low memory may be overwritten and the task may then abort.

5. Multi-buffer and big buffer processing in random mode is not as efficient as it should be.

6. The FCS CLOSE$ process is incorrect. When it must flush user data to a full disk, it does not return the "device full" error code. Instead, it returns a status of "success."

7. A call to the FCS routine .EXTND with both R1 and R2 set to zero is documented as turning auto truncation off. It does that but it also extends the file by the volume default.

Explanation

Problems 1,2, 6, and 7 are fixed in Update C of RSX-11M V4.1.

Problem 3, 4, and 5 will remain as restrictions, but may be fixed in a future release.

However, there are work-arounds to the "loss of data from end of file" problem. It occurs when a PUT "beyond end of file" is followed by a GET of a lowered numbered record and then a CLOSE. PUT does not cause a write unless a buffer is full. Therefore, CLOSE should write any partially full buffers, extending the file if necessary. This does not currently happen, but is fixed in Update C for multi-buffering only. Possible work-arounds are as follows:

- pre-allocate enough space to make wxtension unnecessary
- do a FLUSH after the highest numbered record is PUT
- arrange not to do any GETs after a PUT that should cause the file to extend

Correction Files

[50,60]WTWAIT.MBF
[50,60]WTWAIT.MTA
[50,60]WTWAIT.NMT
[50,60]CLOSE.MBF
[50,60]CLOSE.MTA
[50,60]CLOSE.NMT
[50,60]EXTEND.OBJ
[50,60]CLOSE.COR
[50,60]WTWAIT.COR

10.3.2 **Vectored Entry Points to FCSRES** - The entry points to the FCS resident library (FCSRES) were vectored in Update B, which means that the entry points have remained constant. You can thus use any application tasks that were built against the Update B FCSRES without relinking the tasks.

FCSRES is now compatible with FCSRES on the RSX-11M-PLUS systems and the Micro/RSX systems. This has resulted in an increase in the number of routines included in FCSRES and in a corresponding increase in size. FCSRES is now approximately 7KW in size.

10.3.3 **Change to .FLUSH** - The FCS .FLUSH routine has been modified so that it writes file attributes (including F.EFBK and F.HIBK, the end-of-file and high-allocation block numbers) each time the routine is called. This effectively makes the files that are written using .FLUSH "crashproof."

10.4 EDT Version 3.0

EDT is an interactive text editor. EDT Version 3.0 replaces EDT Version 2.0, and is supplied on this Update kit.

EDT V2.0 and V3.0 are essentially compatible. This section describes the major differences between them. For more details about any particular topic, see the EDT Editor Manual, Order Number AA-M476A-TK included with this update.

10.4.1 **What EDT Does** - EDT provides the following features:

- Both line and character editing facilities
- Screen editing with the keypad on video terminals
- The ability to work on multiple files simultaneously
- A journaling facility, which protects against loss of edits due to system crashes
- An extensive HELP facility
- A default user startup command file, which allows a choice of editing options to be set automatically
- A window into a file (on video terminals only) that lets users view changes in buffer contents immediately
- Ability to be installed as a shareable task for multiple users
- Support for hardcopy terminals, but without a window into a file

10.4.2 **Changes in EDT for V3.0** - The following is a list of the most significant changes and enhancements in EDT V3.0:

- Support for new terminals
- New manual
- System-wide startup file
- More error checking
- Screen width handling on startup
- More lines in a buffer
- New commands for simulating WPS
- Suppression of autorepeat handling on VT102 terminals
- Deletion of output files on error
- Journaling of CTRL/C
- Deletion of buffer by CLEAR command
- Removal of ORIGINAL line numbers
- Write-checking on work disk
- Not supported on IAS

10.4.2.1 **Support for New Terminals** - EDT now supports the VK100 (GIGI) and terminals with the LK201 keyboards, such as the PC350 in terminal emulation mode and the VT200-series terminals. It continues to support the VT100 and VT52 terminals.

When used with the VK100, EDT shows the select range in reverse video but does not attempt to use scrolling regions. When used with terminals that have the LK201 keyboard, EDT provides definitions for the six-key editing keypad, and allows the function keys to be defined. EDT also supports the new graphic characters (the DEC multinational character set) available on these terminals.

10.4.2.2 **New Manual** - The EDT Editor Manual has been completely rewritten. It contains a comprehensive reference section that explains each of the EDT commands. Also included is a chapter on advanced EDT, covering defining keys, augmenting the help file, editing the journal file, and more.

10.4.2.3 **Installation Startup File** - An installation may elect to use a system-wide startup command file that is read by EDT when any user starts editing. In addition, this system-wide startup command file can chain to a user's own startup file.

10.4.2.4 **More Error Checking** - EDT now does much more error checking than it used to. This means that an incorrect command will produce an error message instead of causing EDT to produce unpredictable results. For example, in EDT V2.0, the following command copied many fewer than 100,000(decimal) lines on a PDP-11:

```
COPY W TO END /DUP:100000
```

This command now produces an error message, as it should.

A consequence of this increased error checking in EDT V3.0 is occasional incompatibility with EDT V2.0. For examples, the DEFINE KEY command now demands that your keypad key numbers be in the documented range of 0 to 21(decimal), whereas previously you could define any key using EDT's internal number for that key. You must now use the documented syntax. This change was necessary to accommodate the LK201 function keys, because the old key numbering would not have worked on LK201 keyboards.

10.4.2.5 **Screen Width Handling on Startup** - EDT now looks at the operating system's record of your terminal's width when starting up. Thus, if you like to run with your VT100 always set to 132-column mode, EDT will not truncate your listing lines at column 80. This change was also needed to support the VK100, which has a width of 84 characters.

If you change your terminal width while in EDT, using the SET SCREEN command, EDT restores your terminal to its original width setting when you exit. When EDT enters change mode, and when you type CTRL/W to refresh the screen, EDT sets the screen to the width EDT thinks it has, so that the hardware and software will be synchronized.

10.4.2.6 **More Lines in a Buffer** - EDT V2.0 had a problem trying to number more than about 49,000(decimal) lines in a single buffer, because it used only 32(decimal) bits to store each line number. EDT V3.0 uses 48(decimal) bits to store each line number, and therefore has a much higher limit on the number of lines in a buffer.

10.4.2.7 **New Commands for Simulating WPS** - Several new commands have been added to EDT V3.0 so that you can define the keypad to be more like the WPS word-processing keypad than was possible with EDT V2.0. EDT is not a word processing editor; it does not have rulers, for example. With these new commands, however, you can make EDT more familiar to users who are familiar with the WPS keypad.

10.4.2.8 **Suppressing Autorepeat Handling on VT102 Terminals** - The slow repeat speed of the arrow keys has been a problem when EDT was used with VT102 terminals. EDT V3.0 now allows you to suppress its manipulation of the "autorepeat" feature of these terminals, so that the arrow keys repeat faster. Unfortunately, with autorepeat manipulation suppressed it is possible for the arrow keys to repeat faster than EDT can process them, and so when you stop repeating an arrow key the cursor may continue to move for a while as EDT catches up.

10.4.2.9 **Deletion of Output Files on Error** - If EDT encounters an error when writing an output file, EDT now deletes the file instead of leaving an incomplete file. This solves a problem in which a user encounters an error, leaves EDT, deletes all apparently unnecessary files, then finds that s/he does not have a good copy of the original file.

10.4.2.10 **Journaling of CTRL/C** - Use of CTRL/C is now recorded in the journal file. This means that you can abort a search using CTRL/C and still recover your complete editing session using the journal file.

10.4.2.11 **Deletion of Buffer by CLEAR Command** - The CLEAR command now deletes a buffer, not just its contents. This means that if you define a macro, the CLEAR command will undefine it. This also frees some of EDT's internal storage, an advantage when running EDT on PDP-11 processors. This changes affects compatibility with EDT V2.0, however: if you are positioned in the buffer you delete, you are moved to buffer MAIN.

If you need to, you can work around this change by using the DELETE WHOLE command in place of the CLEAR command. For example, if you have a key definition that reads a file into a buffer, it should be coded as follows:

```
EXT F=X
DEL WHOLE
INCLUDE file.typ
```

That sequence yields the same result as this sequence used with EDT V2.0:

```
EXT F=X
CLEAR =X
INCLUDE file.typ
```

10.4.2.12 **Removal of "Original" Line Numbers** - EDT's "original" line number feature has been removed. In its place are several new procedures for dealing with sequentially numbered files. The new EDT manual contains information on these new procedures.

10.4.2.13 **Write-Checking on Work Disk** - EDT now permits write-checking to be enabled on the disk on which EDT keeps its work file. Thus, the restriction on write-checking the work disk, published in the January 1983 edition of the RSX-11M-PLUS Software Dispatch, p. 95, is now removed.

10.4.3 **Known Restrictions** - The following restrictions apply to EDT V3.0:

- In line mode, if EDT sees three EOFs (ends-of-file) in a row when trying to read a command, EDT executes the QUIT/SAVE command. This is to keep EDT from getting into an endless loop when EDT is run from a command file that does not include an EXIT command.
- There is a restriction in the operation of CTRL/C. If you type CTRL/C when inserting text, the CTRL/C echos as ^C, spoiling the screen display. To rewrite the screen display, type CTRL/W twice.
- If the EDT help file does not exist, or if the keypad diagram is not present, EDT prints a message and continues processing without regard for the error.
- EDT is a large program, even though it is overlaid. If you have a small system, you may want to use KED and/or EDI, both of which are smaller.

10.5 Terminal Emulation and Files Transfer Using DTE and MFT

DTE (Data Terminal Emulator) and MFT (the RSX-11M/M-PLUS File Transfer Utility) are tasks that enable a local Micro/RSX system terminal to establish itself as a remote terminal on an RSX-11M/M-PLUS system. The RSX-11M/M-PLUS system then acts as the host system. Once established, the local terminal can conduct an interactive session with the host system and also transfer files by using MFT, between the two systems.

DTE is distributed with the Micro/RSX operating system. It provides the capability of conducting an interactive terminal session with a host system from an Micro/RSX user terminal.

MFT is included in this Update and will also be included in the first release of VAX-11 RSX. It adds the capability of deleting and copying files between a Micro/RSX system and a host system. MFT works with DTE to perform file transfer operations between the connected systems.

Note that the DTE and MFT tasks are separate tasks that work together but execute on two physically different systems. DTE is on the Micro/RSX system and MFT is on the host system. Also note that DTE and MFT do not allow a local RSX-11M/M-PLUS terminal to connect to a Micro/RSX system.

You must establish a hardware connection between the Micro/RSX system and the remote system through a terminal port on each system (DL11/DLV11 serial interface or DH11/DHV11 and DZ11/DZV11 multiplexers). You can make the connection with a null modem cable run between systems, or through a modem to a remote system with modem support. Transmission speed between systems varies depending upon processor type, interface type, system load, distance between systems, and terminal support (full-duplex terminal driver support is required, and the use of high baud rates requires that the remote system support the XON/XOFF protocol). If the XON/XOFF protcol is used, effective speed of data transfer may be slower than that supported by physical connection or modem.

MFT performs file transfer between systems using an error detection and correction algorithm to ensure data integrity. The speed of file transfer varies with the processor and interface types, system load, and software (support for variable typeahead buffer size allows for higher transfer rates). The user's terminal is locked out during file transfer operations to prevent interference with the data transfer. The user is returned to terminal emulation upon completion of the file operation.

You use DTE and MFT with several DCL or MCR commands.

See the documentation for the Micro/RSX Advanced Programmer's Kit for a more detailed description of the DTE and MFT tasks and their command interfaces.

10.5.1 **DCL Syntax for MFT** - The DCL COPY and DELETE command syntax for the MFT file copy and delete operations is as follows:

```
COPY from_file[/options] to_file[/options]

DELETE file[/options]
```

Where:

from_file	is the name of the input file for MFT to transfer.
to_file	is the name of the output for MFT to copy the input file (from_file) into.
/options	
/REMOTE	is used to indicate that the file is on the local system using terminal emulation which is remote to the host system. The absence of /REMOTE indicates that the file is on the host system.
file	file name of the file to be deleted.

For input files, /REMOTE indicates that the file resides on the DTE system. For output files, /REMOTE indicates that the output file should be created on the DTE system. When using the DELETE/REMOTE command, the file to be deleted should be deleted on the DTE system. (A normal 'DELETE filespec' command does not use DTE; it is a host DCL command.)

Examples:

```
COPY INFILE.DAT OUTFILE.DAT/REMOTE
```

Copies the file 'INFILE.DAT' from the host (MFT) system into 'OUTFILE.DAT' on the DTE system.

```
COPY INFILE.DAT/REMOTE OUTFILE.DAT
```

Copies the file 'INFILE.DAT' from the DTE system into 'OUTFILE.DAT' on the host (MFT) system.

```
DELETE FILE.DAT/REMOTE
```

Deletes the file 'FILE.DAT' on the DTE system.

10.6 Support for VT200-Series Terminals

Support has been added to RSX-11M for the VT200 family of terminals, including the VT220 and the VT240. These terminals may be identified to the system using the following DCL, MCR, and VMR commands:

```
DCL> SET TERM/VT200_SERIES
MCR> SET /VT2XX=TI:
VMR> SET /VT2XX=TI:
```

Note that the various models of the VT200 series are grouped under one classification (VT200_SERIES). The specific model is not identified to or available from the system; instead, you should poll the system for the terminal characteristics rather than the terminal name, where appropriate. If the terminal type is VT200_SERIES, the application can issue escape sequences to obtain further terminal capabilities.

To use the DIGITAL Multinational Character set with the VT200 series of terminals, you must set the eight-bit-character characteristic true, using the following MCR or DCL command:

```
MCR> SET /EBC=TI:
DCL> SET TERM/EIGHT_BIT
```

10.7 RXV21 Controller Support on LSI-11 Bus Systems

The RX02 controller for the LSI-11 bus, the RXV21, does not support 22-bit addressing. Because the RXV21 controller cannot perform DMA in the total range of addresses on a 22-bit system, RSX-11M has not supported the RXV21 controller. Using the RXV21 controller on a 22-bit LSI-11 bus system crashes the system.

This Update contains modifications to the RX02 device driver to support the RXV21 controller running on an RSX-11M system. The RX02 driver now buffers data from the user task to the RXV21 controller and from the RXV21 controller to the user task. To perform a read operation, the RXV21 controller initiates a DMA transfer of the data into a data common area named DYCOM. The data is then transferred from the data common area to the user task. To perform a write operation, the data from the user task is transferred to the data common area and the RXV21 controller initiates a DMA transfer of the data to the disk. The data common area must be located in the first 124K words of physical memory.

The data common area is necessary only for processors using the LSI-11 bus. The data common cannot be removed from a 22-bit LSI-11 bus system without unloading the DY driver. In addition, during system bootup, if the data common is not installed for the 22-bit QBUS systems, the RX02 driver does not come on line. For UNIBUS systems, the data common area is not needed and can be removed from the system.

For RSX-11S system users, the following is an example of a configuration for a mapped RSX-11S system with Executive commons, system-controlled partitions, loadable device drivers, and the RX02 data common DYCOM:

```
RSX11S.SYS
SET /POOL
SET /MAIN=TTPAR:*:216:TASK
LOA TT:
SET /MAIN=DRVPAR:*:*:SYS
LOA DL:
LOA DD:
LOA LP:
LOA DY:
SET /TOP=DRVPAR:-*
SET /MAIN=DYCOM:*:20:COM
INS DYCOM
SET /MAIN=EXCOM1:*:200:COM
INS EXCOM1
SET /MAIN=EXCOM2:*:200:COM
INS EXCOM2
SET /MAIN=SYSPAR:*:37:TASK
INS TKN/FIX=YES
SET /MAIN=SIPPAR:*:74:TASK
INS SIP/FIX=YES
SET /MAIN=GEN:*:SYS
SET /POOL
```

To configure your RSX-11S system, you must run VMR on the system's task image file and then enter the above commands. Note that DYCOM must reside in the first 124K words of physical memory. DYCOM has a length of 2000 bytes. For two RXV21 controllers, DYCOM should have the length of 4000 bytes.

10.8 Changes to the Bad Block Replacement Control Task

The Bad Block Reconfiguration and Recovery Task (RCT) is designed to handle bad block replacement on disks using the UDA50A controller. In RSX-11M V4.1, there exist some conditions under which RCT can perform improperly.

The following is a list of these conditions and the solutions for each. The solutions are all included in this Update. For a complete description of RCT, see Chapter 5 of the RSX-11M/M-PLUS System Management Guide.

Problem Statement

If multiple QIOs encounter bad blocks, one or more QIOs may be lost.

Explanation

When the DU: driver invokes RCT, the driver puts the I/O packet involved into an internal queue. The driver retries the I/O after RCT completes the replacement. RCT checks its internal

work queue and goes back to user state before exiting. This gives the DU: driver a chance to queue up more packets for RCT before RCT is able to exit. The next time a bad block is encountered RCT is started and performs both replacements, but in the meantime, the I/O packet remains in the driver queue, uncompleted.

Solution

RCT exits from system state, preventing this loss of I/O.

Problem Statement

A crash during a bad block replacement can result in user data corruption and/or corruption of the revector control table.

Explanation

If a crash occurs during a replacement, some internal parameters are not correctly restored when the replacement is resumed. These internal parameters are used to calculate where the replacement is to take place.

Solution

RCT now correctly resumes replacements following a crash.

Problem Statement

If intermitten errors occur when RCT is reading or writing a revector control table block, the revector control table may become corrupt.

Explanation

RCT does not correctly update the revector control table. Because revector table blocks cannot be replaced, there are multiple copies of the table. If corresponding blocks in all copies are bad, the disk is unusable. To read a revector control table block, RCT first reads the block from copy number 1. If this does not succeed, copy number 2 is tried, and so on.

Updating the table requires that the information be recorded in all copies of the table. If RCT encounters a bad blcok while updating the table, the block must be rewritten with a "forced error" modifier. Any subsequent read of that block returns an error. This prevents RCT from reading outdated information from randomly bad blocks. RCT does not always update all copies of the revector control table and RCT does not always rewrite the bad blocks using the "forced error" modifier.

Solution

RCT now correctly updates all copies of the revector control table. The correction involves a change to the DU: driver as well as modifications to RCT.

Correction Files

[75,64]RCTDAT.OBJ
[75,64]RCTROT.OBJ
[75,64]RCTSUB.OBJ
[1,60]RCTBLD.COR
[11,60]DUDRV.COR

10.9 MACRO-11 Changes

1. Index deferred arguments on FPU instructions

   Index deferred arguments to some FPU instructions were being defaulted to type=floating. All index deferred arguments are now handled as type=octal by default.

2. Exit status

   The V05.00 version of the RSX-11 assembler had a bug that caused it to exit with SUCCESS exit status even though errors were reported. This has been corrected.

3. Internal displaced relocation statements

   Previously, an internal displaced relocatable statement such as:

   ```
   LABEL:   MOV 1000,R0
   ```

   was not being listed in a MACRO .LST file as being (internally) relocatable (for example, marked with a "'"). This has been corrected.

4. .PSECT object file record

   Previously, Bit 3 (the 10 bit) was being set in all .PSECT .OBJ records. This was incorrect because bit 3 is an unused bit. Bit 3 is no longer set. WARNING: As a result, .OBJ files created with this new version of the assembler are different from previous versions. PAT checksums will be different on .OBJ files created by this new version of the assembler. Also note that direct comparison of .OBJ files is not advised because a change in .OBJ language does not mean that the resulting task image file contents will change, as this case demonstrates.

5. Odd address trap

   MACRO-11/RSX detection of an I/O error on a command file caused an odd-address trap. Instead of exiting with the following error message:

   ```
   MAC -- Command I/O error
   ```

   MACRO-11 would instead odd-address trap. This has been corrected.

6. PGLEN (Dynamic page length routine) added

   All versions of MACRO-11/RSX except the IAS and RSTS/E versions now contain the future SYSLIB routine 'PGLEN'. This routine, designed for the VAX-11 RSX and Micro/RSX, allows the system manager to dynamically control the page length of utilities. Because PGLEN is not yet in SYSLIB on standard RSX systems, the MACRO-11 object library file contains its own copy.

10.10 RSX-11S V4.1 Update C Correction Files

In addition to the corrections listed in Section 10.1, the following corrections have been made to RSX-11S V4.1:

Problem Statement

The following problems with OTL have been corrected:

1. Increment switch and Extend Task option did not work properly.

2. When loading a lot of tasks into GEN, the loader overflowed.

3. The loaded task did not work if it was mapped to more than one common/library.

4. During loading of a task into GEN, the subpartition was not marked as being in a system-controlled partition.

5. Large overlaid tasks, for example ones that occupied 50K of memory, did not get loaded properly.

Correction Files

[20,60]OTLLB.COR
[20,60]OTLCD.COR
[20,60]OTLHD.COR

Problem Statement

The current version of VMR does not force a task to be fixed in an RSX-11S system. Once the system is booted, any attempt to remove such a task using basic MCR will cause a system hang to occur. The REMove command has been changed to always correctly remove a task.

Correction Files

[16,60]REMBAS.COR

RSX-11M/11S V4.1
Update Installation Guide
and Update Notes
Revision C
AA-W259C-TC

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